AMENDMENTS TO THE SPECIFICATION

Replace the paragraph beginning on page 11, line 19, as follows:

This manufacturing process may be illustrated using the flow chart set forth in FIG. 9. A production wafer 22 is placed in the wafer stage 112 of stepper 100 at step 400. Next, the location of the wafer stage is determined using the interferometers 118, 120 and mirrors 114, 116 of the stepper 100 at step 402. This location data of the wafer stage 112 of the stepper constitutes stepper array x_{PA}, y_{PA}. The stepper location array x_{PA}, y_{PA} is processed by the processor 122 at step 404 and transmitted to the stepper memory 123 at step 406. At step 408, the photolithographic manufacturing process of the stepper 100 is completed. At step 410, the production wafer 22 is transferred from the wafer stage 112 of the stepper 100 and placed in the wafer stage 212 of the scanner 200. During this transfer step, the production wafer 22 maintains the same orientation in the x-y plane. In FIGS. 4A and 4B ~~FIG. 4~~ this orientation is with the notch 23 facing up.

Replace the paragraph beginning on page 12 at line 18, as follows:

Under the improved alignment method for accommodating rotated wafers during the manufacture of an integrated circuit, an existing calibration array obtained using a calibration wafer 10 that is not rotated, is modified and used to determine and control the position of a production wafer 23 that is rotated when transferred from a stepper to a scanner. As shown in ~~FIG. 14~~ FIGS. 14A and 14B, the production wafer 23 is placed in the wafer stage 512 of the stepper 500 with its notch 24 facing in a first direction (x). The wafer stage 512, light source, lens, and mask (not shown) are aligned to produce sub-area 1 and sub area 1 is exposed as shown in FIG. 10. During alignment, location data x_{NA}, y_{NA} for the wafer stage 512 is obtained using the alignment mirrors 514, 516 and interferometers 518, 520 of the stepper 500. This location is processed by the processor 522 of the stepper 500 at step 504 and transmitted to the stepper memory 523. After

exposure of sub-area 1, the wafer stage 512 moves to sub-area 2 and the mask is aligned and sub-area 2, FIG. 11, is exposed.

Replace the paragraph beginning on page 14 at line 14 as follows:

Referring now to FIG. 15, a production wafer 23 is placed in the wafer stage 512 of stepper 500 at step 800. Next, the location of the wafer stage is determined using the interferometers 518, 520 and mirrors 514, 516 of the stepper 500 at step 802. This location data of the wafer stage 512 of the stepper 500 constitutes an array x_{NA}, y_{NA}. The stepper location array data x_{NA}, y_{NA} is processed by the processor 522 of the stepper 500 at step 804 and is stored in memory 523 at step 806. At step 808, the photolithographic manufacturing process of the stepper 500 is completed. At step 810a, the production wafer 23 is removed from the wafer stage 512 of the stepper 500, rotated 90° at step 810b and placed in the wafer stage 612 of the scanner 600 at step 810c. In ~~FIG. 14~~ FIGS. 14A and 14B, the orientation of the production wafer 23 changes from the notch facing in the first direction (x) in the stepper 500 to facing in the second direction (y) in the scanner 600.